

**Amendments to the Claims:**

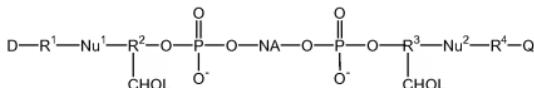
This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1 1-49. (Canceled)

1 50. (Previously presented) A probe nucleic acid having the formula:

2



4 wherein,

5 CHOL is a cholesterol derivative;

6  $R^1, R^2, R^3$  and  $R^4$  are linker moieties independently selected from the group  
7 consisting of substituted or unsubstituted alkyl and substituted or  
8 unsubstituted heteroalkyl;

9  $\text{Nu}^1$  and  $\text{Nu}^2$  are members independently selected from the group consisting of  
10 nucleotide residues and nucleoside residues;

11 NA is a nucleic acid sequence;

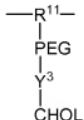
12 D is a donor of light energy; and

13 Q is a quencher of light energy,

14 wherein the CHOL moieties interact to bring D and Q into operative proximity,  
15 thereby enabling transfer of energy from D to Q, and

16 wherein said probe nucleic acid sequence is not hybridized to a target nucleic  
17 acid.

1           51. (Previously presented) The probe nucleic acid according to claim 50,  
2       wherein R<sup>2</sup>-CHOL and R<sup>3</sup>-CHOL are independently selected and have structures according to  
3       the formula:



5       wherein,

6           R<sup>11</sup> is a member selected from the group consisting of substituted or unsubstituted  
7       alkyl and substituted or unsubstituted heteroalkyl;

8           PEG is polyethylene glycol;

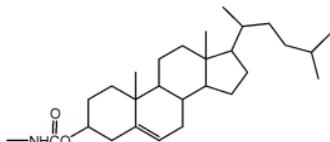
9           Y<sup>3</sup> is an organic functional group adjoining said PEG to said CHOL.

1           52. (Previously presented) The probe nucleic acid according to claim 51,  
2       wherein said PEG has from about 2 to about 20 ethylene glycol subunits.

1           53. (Previously presented) The probe nucleic acid according to claim 51 in  
2       which R<sup>11</sup> is substituted or unsubstituted alkyl.

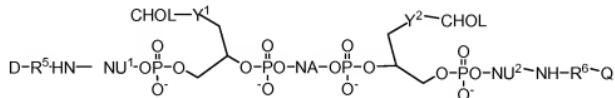
1           54. (Previously presented) The probe nucleic acid according to claim 53,  
2       wherein R<sup>11</sup> is C<sub>1</sub>-C<sub>6</sub> substituted or unsubstituted alkyl.

1           55. (Previously presented) The probe nucleic acid according to claim 51,  
2       wherein Y<sup>3</sup>-CHOL has the structure:



1               56. (Previously presented) The probe nucleic acid according to claim 50,  
2   wherein Nu<sup>1</sup> and Nu<sup>2</sup> are nucleotides having an exocyclic amine group to which -R<sup>1</sup>-D and -R<sup>4</sup>Q  
3   are attached, respectively.

1               57. (Currently amended) A probe nucleic acid having the formula:



3   wherein,

4               NA is a nucleic acid sequence;

5               Nu<sup>1</sup> and Nu<sup>2</sup> are members independently selected from the group consisting of  
6               nucleotide residues and nucleoside residues;

7               Y<sup>1</sup> and Y<sup>2</sup> are linking groups independently selected from the group consisting of  
8               substituted or unsubstituted alkyl and substituted or unsubstituted  
9               heteroalkyl;

10              R<sup>5</sup> and R<sup>6</sup> are linking groups independently selected from the group consisting of  
11              substituted or unsubstituted alkyl and substituted or unsubstituted  
12              heteroalkyl;

13              D is a donor of light energy; and

14              Q is a quencher of light energy,

15              wherein each CHOL interacts with the other CHOL to bring D and Q into  
16              operative proximity, thereby enabling transfer of energy from D to Q, and

17              wherein said probe nucleic acid sequence is not hybridized to a target nucleic  
18              acid.

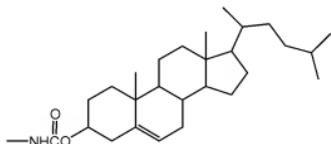
1               58. (Previously presented) The probe nucleic acid according to claim 57,

2   wherein Y<sup>1</sup> and Y<sup>2</sup> are members independently selected from substituted or unsubstituted  
3   heteroalkyl.

1                59. (Previously presented) The probe nucleic acid according to claim 58,  
2    wherein Y<sup>1</sup> and Y<sup>2</sup> are polyethylene glycol.

3                60. (Previously presented) The probe nucleic acid according to claim 59,  
wherein said polyethylene glycol has from about 2 to about 20 ethylene glycol subunits.

1                61. (Previously presented) The probe nucleic acid according to claim 57,  
2    wherein Y<sup>1</sup>-CHOL and Y<sup>2</sup>-CHOL have the structure:



3

1                62. (Canceled)